

SUMMARY

A near collision occurred on 4 September 2019 in the airspace over the runway at Stockholm/Västerås Airport. The pilots detected each other's aeroplanes at a late stage and performed avoidance manoeuvres. At the time of the incident, the airport was open and the navigation aids were functioning. However, the airport's tower (TWR) was closed and the airspace uncontrolled (class G airspace). AIP Sweden states that the airport's terminal manoeuvring area (TMA) and control area (CTR) are only established during the tower's hours of operation.

One of the aeroplanes, a Cessna 172, was being operated in accordance with an IFR flight plan and was performing repeated instrument NDB¹ approaches to runway 01. The other aeroplane, a Piper PA-28, was being flown in accordance with a VFR flight plan and was on a training flight that encompassed navigation flying to the west of the airport and joined the traffic circuit for landing in accordance with the published VFR procedure.

The fact that the aeroplanes were adhering to different AIP procedures for IFR and VFR approaches, respectively, resulted in their flight paths crossing at the same altitude over the runway. Sensor data shows that both aeroplanes passed close to one another at about the same altitude and with a minimum horizontal separation of 150 metres (0.08 Nm). In addition, sensor data show that the Piper PA-28 made a sharp avoidance manoeuvre to the right just before the paths crossed.

It is SHK's opinion that the incident has demonstrated the risks involved in VFR and IFR approaches taking place at the same time to an uncontrolled aerodrome in uncontrolled airspace where the published approach procedures' flight paths cross one another at the same altitude.

The investigation has also shown that there are differences of opinion as to whether the regulations allow IFR approaches to open instrument aerodromes where the tower is closed, i.e. in uncontrolled airspace. It is SHK's opinion that there is a need to clarify the implications of the regulations in this respect and communicate this in a clear manner to both aerodromes and pilots.

The incident was caused by the aeroplanes adhering to two different approach procedures with flight paths that crossed one another at the same altitude.

Several factors may have contributed to the incident. The window beam of the Cessna may, to a certain extent, have blocked the Cessna pilot's view and may thereby have contributed to late detection of the approaching PA-28. The Cessna pilot, who was flying in accordance with IFR rules, may be presumed to have been concentrating primarily on the flight and navigation instruments and not sufficiently on outward visual observations. Furthermore, the Cessna was below the horizon from the perspective of the PA-28, which may have made it more difficult for the pilot of the PA-28 to detect the Cessna earlier.

Another contributing factor may have been that the crew of the PA-28 did not fully understand the intentions of the Cessna because they did not have valid instrument ratings and therefore did not have knowledge of the format of the IFR procedures at the airport.

Safety recommendations

The Swedish Transport Agency is recommended to:

- In consultation with the EASA, clarify the prerequisites for IFR flights to uncontrolled instrument aerodromes and take action to ensure this is communicated to all parties concerned. (*RL 2020:05 R1*)

¹ NDB – Non Directional Beacon.